

ViewSonic®



WUSB100

Wireless 802.11g USB Adapter

User Guide



Copyright © ViewSonic Corporation, 2004. All rights reserved.

ViewSonic and the three birds logo are registered trademarks of ViewSonic Corporation.

Microsoft and Windows are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

Corporate names and trademarks are the property of their respective companies.

Disclaimer: ViewSonic Corporation shall not be liable for technical or editorial errors or omissions contained herein; nor for incidental or consequential damages resulting from furnishing this material, or the performance or use of this product.

In the interest of continuing product improvement, ViewSonic Corporation reserves the right to change product specifications without notice. Information in this document may change without notice.

No part of this document may be copied, reproduced, or transmitted by any means, for any purpose without prior written permission from ViewSonic Corporation.

Product Registration

To meet your future needs and to receive additional product information as it becomes available, register your ViewSonic® product at:
www.viewsonic.com

For Your Records

Product Name:	ViewSonic 802.11g Wireless USB Adapter WUSB100
Model Number:	VS10260
Document Number:	A-CD-WUSB100-1-UG
Serial Number:	_____
Purchase Date:	_____

Table of Contents

Chapter 1: Getting Started

Welcome	1
Package Contents	1
Features	1
LED Status Indicators	2

Chapter 2: Installation

System Requirements	3
Wireless Network Overview	3
Installation	4
Wireless Configuration	7
Verifying a Successful Installation	10
Uninstalling the Drivers	10

Chapter 3: Appendix

Wireless Configuration with Windows 98SE, ME, & 2000	11
Troubleshooting	13
Customer Support	17
Specifications	18
Limited Warranty	19
Regulatory Information	21

Chapter 1: Getting Started

Welcome

Congratulations on your purchase of your ViewSonic Wireless USB Adapter. This USB Adapter supports both 802.11b and 802.11g wireless networks.

Package Contents



ViewSonic WUSB100 802.11g
Wireless USB Adapter



USB Cradle

NOTE: Insert the WUSB100 first.



Networking Companion CD
(with Setup Wizard and
User Guide)



User Guide

Features

- 54Mbps transmission with a bandwidth of 2.4GHz
- Wireless security using WPA with TKIP encryption with EAP-type Authentication
- Supports both 802.11b and 802.11g wireless networks
- Plug & Play Installation
- USB 2.0 support
- 300° swivel

LED Status Indicators



See the table below for the meaning of LED light codes.

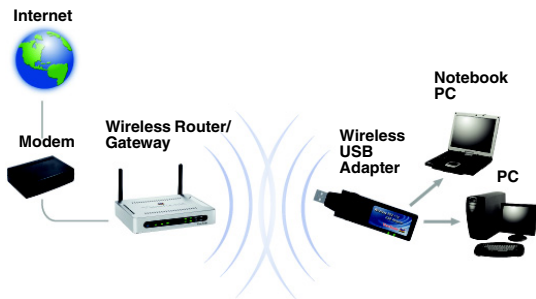
LED	Light Code	Meaning of Code
Activity LED	Solid green	Wireless LAN is ready.
	Blinking green	Data transfer in process.
Link LED	Solid green	Wireless LAN is ready.
	Blinking green	Attempting to connect to network's AP (Access point). If blinking continues, a connection was not made.

Chapter 2: Installation

System Requirements

- Microsoft Windows XP, Windows 2000, Windows ME, or Windows 98 Second Edition (SE)
- USB port on your PC (USB 2.0 recommended for best performance)
- 300MHz processor or higher
- Minimum 5MB free disk space
- Minimum 32MB RAM
- CD-ROM drive

Wireless Network Overview



Installation

NOTE: The installation instructions below apply to Windows XP. Instructions for Windows 98 SE, ME, and 2000 are noted where applicable, and configuration instructions for these three operating systems are located in the Appendix.

To install your ViewSonic Wireless USB Adapter to use with your PC, do the following:

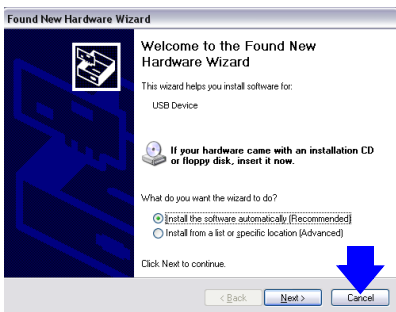
- 1 With your PC powered on, insert the **WUSB100 USB Adapter** into an available USB port on your PC (shown below). If you are using the supplied USB Cradle, insert the WUSB100 into the cradle, then connect the cradle's cable to a USB port.



- 2 Insert the supplied *ViewSonic Networking Companion CD* into the CD-ROM drive of your computer. The software automatically starts the Setup Wizard program.

NOTE: If the CD does not auto-start, right-click **Start**, select **Explore**, double-click the CD-ROM icon, then double-click the **Setup** icon.

- 3 When the **Found New Hardware Wizard** dialog box appears, click **Cancel**. See the illustration on the next page.



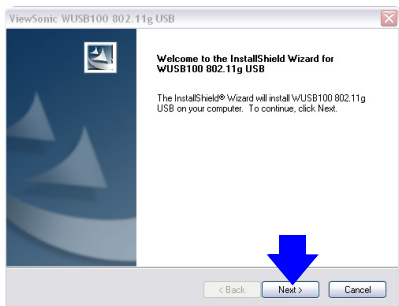
- 4 From the home page of the ViewSonic Networking Setup Wizard (shown below), click **Wireless USB Adapter**.



- 5 On the next screen (shown below), click **WUSB100 Driver Installation**.



- 6 Complete the **InstallShield Wizard** instructions starting with the screen shown below.



- 7 After completing the on-screen instructions, restart your PC.

NOTE for Windows 98 SE:

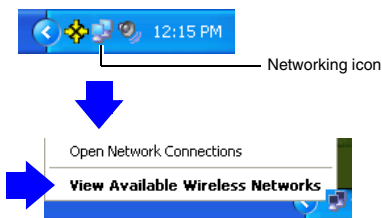
After restarting your PC, you may be asked to restart your PC again and/or insert the Windows 98 SE CD. Please follow these instructions.

- 8 Complete the configuration procedure appropriate for your operating system:
 - If you are using **Window XP**, complete the instructions in the next section, *Wireless Configuration*.
 - If you are using **Windows 98SE, ME, or 2000**, see the Appendix for configuration instructions.

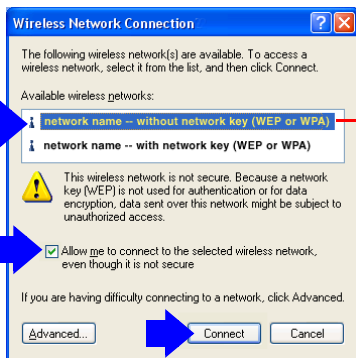
Wireless Configuration

SUGGESTION: To configure your WUSB100, you will need the configuration settings (Network Name [SSID], security settings, etc.) of your wireless router or gateway. For your convenience, write down these settings for later reference.

- 1 To configure your WUSB100 with Windows XP, do the following: From the Windows XP desktop, right-click the **Networking** icon on the Windows status bar (shown below), then select **View Available Wireless Networks**.

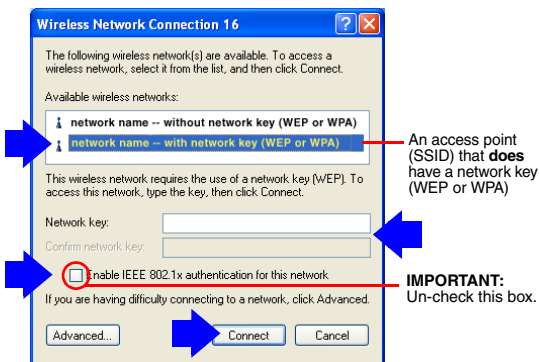


The **Wireless Network Connection** screen displays (see the next page).



An access point (SSID) that does **not** have a network key (WEP or WPA)

- 2 In the **Available wireless networks** list, click the network name (SSID) for the access point you want to connect to (typically, the SSID for your wireless router or gateway).
 - If you selected an SSID without a network key (WEP or WPA) associated with it, click **Allow me to connect to the selected wireless network, even though it is not secure**, then click **Connect**. See the **Wireless Network Connection** screen shown above.
 - If you selected an SSID with a network key, enter it in the **Network key** field, re-enter it in the **Confirm network key** field, un-check **Enable IEEE 802.1x authentication for this network**, then click **Connect**. See the **Wireless Network Connection** screen shown on the next page.
 - **IMPORTANT:** Be sure to un-check **Enable IEEE 802.1x authentication for this network**.



NOTE: The *WUSB100* Wireless 802.11g USB Adapter reads the Network Name (SSID) from accessible access points and/or the router or gateway connected to your wireless network. If you want to change/add an SSID or network key, change the configuration settings on your wireless router or gateway, repeat the *WUSB100*'s installation procedure using the new settings.

Verifying a Successful Installation

The simplest way to verify a successful installation is to try opening your Internet browser. If it opens, installation is complete.

For a more thorough way to verify a successful installation, do the following:

- 1 Click **Start**, click **Control Panel**, select **Classic View**, click **System**, select the **Hardware** tab, then click **Device Manager** tab.
- 2 In the **System Properties** dialogue box, click the **Hardware** tab, then click **Device Manager**.
- 3 In the opened screen, expand **Network Adapters** double-click **Wireless 802.11g USB Adapter**.
NOTE: If the WUSB100 is installed properly, there will NOT be a red or yellow icon next to **Wireless 802.11g USB Adapter**, such as a question mark (?).
- 4 If you do see a yellow or red icon, do the following to uninstall the drivers: **Start** (Windows desktop) **Programs > Wireless Network > Uninstall**.
- 5 After uninstalling the drivers, repeat the installation procedure described in the preceding pages.

Uninstalling the Drivers

To uninstall the driver and wireless utility software, do the following:

- 1 Click **Start** on the Windows desktop.
- 2 Select: **Programs > ViewSonic > WUSB100 > WUSB100 USB Adapter Uninstall**.

Chapter 3: Appendix

Wireless Configuration with Windows 98SE, ME, & 2000

SUGGESTION: To configure your WUSB100, you will need the configuration settings (Network Name [SSID], security settings, etc.) of your wireless router or gateway. For your convenience, write down these settings for later reference.

Before you start configuring your WUSB100, be sure you have completed the Installation steps on Pages 4-6.

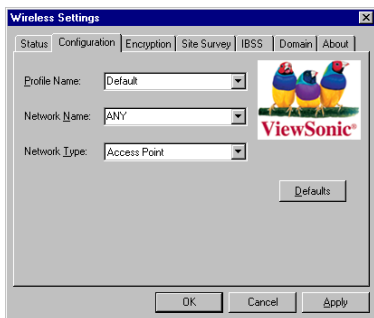
To configure your WUSB100 with Windows 98SE, ME, or 2000, do the following:

- 1 Right-click the **Wireless Settings** utility icon on the Windows status bar, then select **Advanced Configuration**.



Wireless Settings utility icon

The **Wireless Settings** utility screen displays (see the next page).



- 2 Click the **Configuration** tab (shown above), enter the settings to match those of your wireless router or gateway, then click **Apply**. (**Profile Name** is optional).
- 3 If your router or gateway has security settings, click the **Encryption** tab, enter those security settings, then click **Apply**.
NOTE: Windows 98SE, ME, and 2000 only supports WEP, not WPA.
- 4 When you have completed entering the wireless settings, click **OK**.

Troubleshooting

For the fastest solution to an installation problem, please refer to the solutions below before contacting ViewSonic Customer Support for assistance.

The setup wizard does not launch after I insert the Networking Companion CD.

- If the CD does not auto-start, right-click **Start**, select **Explore**, double-click the CD-ROM icon, then double-click the **Setup** icon.
- If the CD still does not respond, try inserting another CD to make sure that the CD-ROM drive is functioning properly.

My PC does not recognize the WUSB100 Wireless USB Adapter after installing it.

- Verify that the WUSB100 is inserted all the way into an available USB port on your computer.
- Check the distance to your router or gateway. It should be within 100 feet of your computer.
- Uninstall the WUSB100 driver software, restart your PC, then repeat the installation and wireless configuration steps listed in Chapter 2.

My WUSB100 disconnects soon after connecting.

For Windows XP only: Try disabling 802.1x authentication:

- 1 Click **Start**, select **Connect To**, select **Show all Connections**, then double-click the name of your wireless network.
- 2 On the **General** tab, click **Properties**.
- 3 Click the **Wireless Networks** tab.
- 4 Under **Preferred Networks**, click **Network Name (SSID)**.

- 5** Click the **Authentication** tab, un-check the **Enable IEEE 802.1X for this network** (if it is selected). If you can not select this check box, then you are not using 802.1x authentication.

My WUSB100 does not work properly after installation.

- **Make sure that the WUSB100 is correctly installed.**
Verify that the WUSB100 is firmly inserted into an available USB port on your computer.
- **Verify that you are using the correct wireless settings.**
You might have incomplete or incorrect wireless settings for your adapter. To connect successfully, the wireless adapter on your PC must have the same network name (SSID) and wireless security (WEP and/or WPA) information as your router or gateway.
- **Reset your router or gateway.** Turn off or unplug your router or gateway, wait at least 10 seconds, then turn it back on again. When the status lights indicate that the router or gateway is functioning, try accessing the Internet from your PC connected to your wireless network.
- **Look for conflicts among your device resources.** Try using Windows Troubleshooting to verify that the WUSB100 is not trying to use computer resources already being used by another piece of hardware.

My network is slow.

- Try decreasing the number of computers or programs that are simultaneously accessing your network.
- Contact your Internet Service Provider (ISP) to verify that there are no problems with your connection, such as scheduled maintenance, line issues, or other problems. If you are still not satisfied with your connection speed, you might want to inquire about upgrading to a faster connection.

After installing my WUSB100, my PC goes into Safe Mode when Windows starts.

- You might have a resource conflict in Windows.
- **Resolve any device conflicts in the Windows operating system.** You can use Windows Troubleshooting to ensure that your WUSB100 is not trying to use computer resources already being used by another piece of hardware.

My wireless computer cannot connect to the Internet.

- **Verify that you can access the Internet from another PC in your wireless network.** If other computers also cannot access the Internet, the problem might be with your router or gateway, broadband modem, or Internet service provider (ISP).
- **Check for range problems.** You might be out of range of the wireless router, gateway, or access point. Place the computer with the wireless adapter in the same room as your router or gateway and try connecting again. If you can connect to the wireless network, you might previously have been out of range.
- **Check for interference problems.** Wireless signals can be affected by interference from other wireless devices such as 2.4 gigahertz (GHz) cordless phones, microwave ovens, and neighboring wireless networks. Move the other devices further from your wireless networking hardware as needed, and avoid using them while connected to your network. To minimize interference from another wireless network, try changing channels on your router.
- **Verify that you are using the correct wireless settings.** You might have incomplete or incorrect wireless settings for your adapter. To connect successfully, the wireless adapter on your computer must have the same network name (SSID) and wireless security (WEP and/or WPA) information as your router or gateway.
- **Reset your broadband modem.** Turn off the modem for 5 to 10 seconds. Restart the modem, and wait for it to

connect to your ISP. After the status lights on your modem indicate that it is connected, and the status lights on your router or gateway show that you have a working wide area network (WAN) connection, try accessing the Internet from your wireless computer again.

- **Reset your router or gateway.** Turn off or unplug your router or gateway, wait at least 10 seconds, then turn it back on again. When the status lights indicate that the router or gateway is functioning, try accessing the Internet from your PC connected to your wireless network.

Customer Support

Before contacting ViewSonic Customer Support, check the *Troubleshooting* section for possible solutions to any setup problems you have.

NOTE: For Customer Support or product service you will need to provide the product's serial number (on the back of the unit).

Country/ Region	Website (with email address)	T = Telephone F = FAX
United States	www.viewsonic.com/support	T: (800) 688-6688 F: (909) 468-1202
Canada	www.viewsonic.com/support	T: (886) 463-4775 F: (909) 468-1202

The websites shown above provide the most current email addresses for your Customer Support queries.

Specifications

WLAN Standards:		
IEEE 802.11g		54, 48, 36, 24, 18, 12, 9, 6 Mbps bit rate
IEEE 802.11b		11, 5.5, 2, 1 Mbps bit rate
Frequency Range		2.400GHz~2.4835GHz (subject to local regulations)
Interface		USB 1.0, 1.1, OR 2.0 (2.0 to maximize speed)
LED Status Indicator		Power and wireless link/activity
Antenna		Internal single chip antenna
Number of Channels		802.11b: USA and Canada - 11 802.11g: USA and Canada - 11
Output Power		Max. 100 mW
Range		Up to 100 meters indoors Up to 400 meters outdoors
Network modes		Infrastructure and Ad Hoc
Software Support		Windows XP, Windows 98SE, Windows 2000, Windows ME
Wireless Security		64/128 bit WEP encryption, WPA (Windows XP, SP, and Windows 2000 SP4 only) and 802.1x
Power Consumption		Tx peak: 370 mA @ 5VDC Rx peak: 340 mA @ 5VDC Power Save Mode: 15 mA @ 5VDC Standby Mode: 7 mA @ 5VDC
Product Dimensions		106mm (W) x 28mm (H) x 15mm (D) 4.2" (W) x 1.1" (H) x 0.6"(D)
Packaging Dimensions		230mm (W) x 152mm (H) x 41mm (D) 9.0" (W) x 6.0" (H) x 1.6"(D)
Weight	Net	0.08 lb. (40 g)
	Gross	0.75 lb. (335 g)
Temperature Range		0~65°C (operating)
Humidity		15%~95%
Regulatory		FCC part 15C, WHQL, IC, Wi-Fi, BSMI, DGT, CCC, SRRC, C-Tick

Limited Warranty

Wireless Network Adapter Products

What the warranty covers:

ViewSonic® warrants its Wireless Network Adapter products to be free from defects in material and workmanship during the warranty period. If a ViewSonic Wireless Network Adapter product proves to be defective in material or workmanship during the warranty period, ViewSonic will, at its sole option, repair or replace the product with a like product. Replacement product or parts may include remanufactured or refurbished parts or components.

VIEWSONIC AND ITS SUPPLIERS DISCLAIM ALL WARRANTIES AND CONDITIONS, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NONINFRINGEMENT.

ANY SOFTWARE THAT MAY BE INCLUDED WITH THIS PRODUCT IS PROVIDED FREE OF CHARGE AND ON AN "AS IS" BASIS, WITHOUT WARRANTY OF ANY KIND, INCLUDING WITHOUT LIMITATION ANY WARRANTIES THAT IT IS FREE OF DEFECTS, MERCHANTABILITY, FIT FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT, OR COMPATIBLE WITH ANY OTHER SOFTWARE. FOR YOUR SPECIFIC RIGHTS AND DUTIES, PLEASE SEE THE END-USER LICENSE AGREEMENT (EULA) CONTAINED WITHIN THE SOFTWARE FOR YOUR PRODUCT.

How long the warranty is effective:

ViewSonic Wireless Network Adapter products are warranted for one (1) year for all parts and one (1) year for all labor from the date of the first consumer purchase.

Who the warranty protects:

This warranty is valid only for the first consumer purchaser.

What the warranty does not cover:

Software.

Any product on which the serial number has been defaced, modified or removed.

Damage, deterioration or malfunction resulting from:

Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.

Repair or attempted repair by anyone not authorized by ViewSonic.

Damage to or loss of any programs, data or removable storage media.

Software or data loss occurring during repair or replacement.

Any damage of the product due to shipment.

Removal or installation of the product.

Causes external to the product, such as electrical power fluctuations or failure.

(Page 1 of 2)

Use of supplies or parts not meeting ViewSonic's specifications.
Normal wear and tear.

Any other cause which does not relate to a product defect.

Removal, installation, and set-up service charges.

How to get service:

For information about receiving service under warranty, contact ViewSonic Customer Support. You will need to provide your product's serial number.

To obtain service under warranty, you will be required to provide (a) the original dated sales slip, (b) your name, (c) your address, (d) a description of the problem, and (e) the serial number of the product.

Take or ship the product freight prepaid in the original container to an authorized ViewSonic service center or ViewSonic.

For additional information or the name of the nearest ViewSonic service center, contact ViewSonic.

Limitation of implied warranties:

THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, WHICH EXTEND BEYOND THE DESCRIPTION CONTAINED HEREIN INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Exclusion of damages:

VIEWSONIC'S LIABILITY IS LIMITED TO THE COST OF REPAIR OR REPLACEMENT OF THE PRODUCT. VIEWSONIC SHALL NOT BE LIABLE FOR:

DAMAGE TO OTHER PROPERTY CAUSED BY ANY DEFECTS IN THE PRODUCT, DAMAGES BASED UPON INCONVENIENCE, LOSS OF USE OF THE PRODUCT, LOSS OF DATA, LOSS OF TIME, LOSS OF PROFITS, LOSS OF BUSINESS OPPORTUNITY, LOSS OF GOODWILL, INTERFERENCE WITH BUSINESS RELATIONSHIPS, OR OTHER COMMERCIAL LOSS, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

ANY OTHER DAMAGES, WHETHER INCIDENTAL, CONSEQUENTIAL OR OTHERWISE.

ANY CLAIM AGAINST THE CUSTOMER BY ANY OTHER PARTY.

Effect of state law:

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow limitations on implied warranties and/or do not allow the exclusion of incidental or consequential damages, so the above limitations and exclusions may not apply to you.

ViewSonic Wireless Network Adapter Products Warranty (V1.0)

Release Date: June 3, 2004

Regulatory Information

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

IMPORTANT NOTE:

FCC Radiation Exposure Statements

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This device complies with FCC RF Exposure limits set forth for an uncontrolled environment, under 47 CFR 2.1093 paragraph (d)(2).

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

ViewSonic Corporation declares that VS10260 FCC ID: QDWWN250GC) is limited in CH1~CH11 by specified firmware controlled in the U.S.A.

Canada IC Compliance Statement

Low Power License-Exempt Radio communication Devices (RSS-210)

1. Warning Note: Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

2. Operation in 2.4GHz band: To prevent radio interference to the licensed service, this device is intended to be operated indoors and away from windows to provide maximum shielding.

Equipment (or its transmit antenna) that is installed outdoors is subject to licensing.

Exposure of Humans to RF Fields for Portable Radio Equipment (RSS-102)

- 1** Portable radios, including handheld, body worn or push-to-talk models (PTT) require Specific Absorption Rate (SAR) evaluation. Portable radios are herein defined as radios that have their radiating elements normally operating 20 cm or less from the body of the user or of nearby persons.
- 2** This device has been tested for compliance with the RF exposure (SAR) limits for humans, as specified in Health Canada's Safety Code 6.
- 3** Health Canada's address is: 775 Brookfield Road, Ottawa, Ontario Canada K1A 1C1; Tel: (613) 954-6699 / Fax: (613) 941-1734; e-mail: alice_mackinnon@hc-sc.gc.ca.

CE Conformity for Europe



The device complies with the requirements of the EEC directive 89/336/EEC as amended by 92/31/EEC and 93/68/EEC Art.5 with regard to "Electromagnetic compatibility, and 73/23/EEC as amended by 93/68/EEC Art.13 with regard to "Safety."

ViewSonic Corporation